

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

1. (Currently Amended): A measuring kit of microorganisms in a liquid sample characterized by comprising:

- a first syringe for collecting a liquid sample;
- a flocculant for flocculating only protein in the liquid sample in the first syringe;
- a first filter case, attachable to the first syringe, for housing a first filter that traps the flocculated protein and somatic cells and that transports free ATP (adenosine triphosphate) and microorganisms;
- a second filter case, attachable to the first filter case, for housing a second filter that traps the microorganisms and that transports the free ATP;
- a second syringe that can attach the second filter case to its leading end;
- a washing liquid for washing the second filter;
- a bacteriolytic agent for dissolving the microorganisms trapped on the second filter so as to dissolve out ATP;
- a measuring tube for gathering the dissolved ATP together with the bacteriolytic agent;
- and
- a luminous reagent for making the dissolved ATP glow.

2. (Original): A measuring kit of microorganisms in a liquid sample according to claim 1, characterized by further comprising a luminometer for measuring a luminous quantity and an adapter attached to the measuring tube so as to make a leading end of the measuring tube reach a luminosity measuring portion of the luminometer.

3. (Original): A measuring kit of microorganisms in a liquid sample according to claim 1 or claim 2, characterized by further comprising a filtering accelerating agent for making filtering perform in a short time or uses one mixing beforehand the filtering accelerating agent as the flocculant.

4. (Previously Presented): A measuring kit of microorganisms in a liquid sample according to claim 1 or 2, characterized in that the first filter and the second filter are assembled integrally in the first filter case and the second filter case and made disposable.

5. (Withdrawn): A measuring method of microorganisms in a liquid sample characterized by comprising:

a step for mixing a liquid sample with a flocculant that flocculates protein in the liquid sample;

a step for filtering under pressure or under reduced pressure by a first filter that traps the flocculated protein and somatic cells and that transports free ATP (adenosine triphosphate) and microorganisms;

a step for filtering under pressure or under reduced pressure a filtered liquid by a second filter that has a pore diameter smaller than the first filter and that traps the microorganisms while transporting the free ATP so as to trap and condense the microorganisms in the liquid sample on a filtration film of the second filter;

and a step for adding a bacteriolytic agent in the microorganisms, adding a luminous reagent in an extracted liquid and measuring a luminous quantity generated.

6. (Withdrawn): A measuring method of microorganisms in a liquid sample according to claim 5, characterized by adding a step for adding a filtering accelerating agent for making filtering in a short time after the step for mixing the liquid sample with the flocculant that flocculates the protein in the liquid sample or simultaneously with the same step.

7. (Withdrawn): A measuring apparatus of microorganisms in a liquid sample characterized by mixing a liquid sample with a flocculant that flocculates protein in the liquid sample;

filtering under pressure or under reduced pressure by a first filter that traps the flocculated protein and somatic cells and that transports free ATP (adenosine triphosphate) and microorganisms;

filtering under pressure or under reduced pressure a filtered liquid by a second filter that has a pore diameter smaller than the first filter and that traps the microorganisms while

transporting the free ATP so as to trap and condense the microorganisms in the liquid sample on a filtration film of the second filter; and

adding a bacteriolytic agent in the microorganisms, adding a luminous reagent in an extracted liquid, and measuring a luminous quantity generated.

8. (Withdrawn): A measuring method of microorganisms in a liquid sample according to claim 7, characterized by adding a filtering accelerating agent for making filtering in a short time after mixing the liquid sample with the flocculant that flocculates the protein in the liquid sample or simultaneously therewith.

9. (Previously Presented): A measuring kit of microorganisms in a liquid sample according to claim 1 or 2, characterized by using an aliphatic alcohol such as an ethanol, a carboxylic acid such as a benzoic acid or a salicylic acid, a chitosan or a chitosan oligosaccharide.

10. (Previously Presented): A measuring kit or a measuring method or a measuring apparatus of microorganisms in a liquid sample according to claim 1 or 2, characterized by using a filtering material of a pore diameter of about $1\ \mu\text{m}$ to about $10\ \mu\text{m}$ as the first filter.

11. (Previously Presented): A measuring kit or a measuring method or a measuring apparatus of microorganisms in a liquid sample according to claim 1 or 2, characterized in that

the second filter is a porous polymer membrane having pores of a pore diameter of about $0.1 \mu\text{m}$ to about $0.5 \mu\text{m}$.

12. (Original): A measuring kit or a measuring method or a measuring apparatus of microorganisms in a liquid sample according to claim 11, characterized in that the porous polymer membrane is made of one polymer among a polytetrafluoroethylene, a polyvinylidene difluoride, a polycarbonate, a cellulose acetate, a hydrophilic polypropylene, a nylon, a hydrophilic polyether sulfonate and hydrophilic borosilicate glass fibers.

13. (Previously Presented): A measuring kit or a measuring method or a measuring apparatus of microorganisms in a liquid sample according to claim 1 or 2, characterized in that the bacteriolytic agent is a sterile distilled water containing a dimethylsulfoxide.

14. (Original): A measuring kit or a measuring method or a measuring apparatus of microorganisms in a liquid sample according to claim 13, characterized in that the bacteriolytic agent is a sterile distilled water containing about 15% by content to about 20% by content of a dimethylsulfoxide.

15. (Previously Presented): A measuring kit or a measuring method or a measuring apparatus of microorganisms in a liquid sample according to claim 3, characterized by using an alkali metal salt of an ethylenediaminetetraacetic acid, an alkali metal salt of a trans-1, 2-

cyclohexanediaminetetraacetic acid, an alkali metal salt of a glycol ether diaminetetraacetic acid, an alkali metal salt of a diethylenetriamine pentaacetic acid, or an alkali metal salt of a nitrilotriacetic acid as the filtering accelerating agent.

16. (Previously Presented): A measuring kit of microorganisms in a liquid sample according to claim 1, further comprising a sterile distilled water added before a solid sample or a sample of high viscosity is mixed with the flocculant so as to homogenize the solid sample or the sample of high viscosity into the liquid sample.

17. (Withdrawn): A measuring method of microorganisms in a liquid sample according to claim 5 or claim 6, characterized by using an aliphatic alcohol such as an ethanol, a carboxylic acid such as a benzoic acid or a salicylic acid, a chitosan or a chitosan oligosaccharide.

18. (Withdrawn): A measuring apparatus of microorganisms in a liquid sample according to claim 7 or claim 8, characterized by using an aliphatic alcohol such as an ethanol, a carboxylic acid such as a benzoic acid or a salicylic acid, a chitosan or a chitosan oligosaccharide.

19. (Previously Presented) A measuring kit of microorganisms in a liquid sample according to claim 1, in which the second syringe is capable of sucking therein the washing liquid so that, when the second syringe is attached to the second filter case, the washing liquid

washes the second filter case by pushing a piston of the second syringe, the second syringe being capable of completely eliminating the washing liquid in the second filter case by detaching the second syringe from the second filter case and sucking an air in the second syringe and then being attached again to the second filter case and feeding an air in the second filter case.

20. (Previously Presented) A measuring kit of microorganisms in a liquid sample according to claim 1, in which the washing liquid is 60% to 100% by content of a sterile distilled water solution of an ethanol or 1% by content to 8% by content of a sterile distilled water solution of a DMSO.